SEE MAP IN LARGE SURVEY FILE FOR CCR 8

ORIGINAL

BENTON COUNTY CONTROL

CCR # 8

FILE DATE 7-28-1995

FILE SIZE 8½x11

VERTICAL ☒

HORIZONTAL ☒

SURVEYOR'S OFFICE REPORT

BENTON COUNTY G.P.S. MAPPING CONTROL SURVEY

TIES TO MONUMENTS

BEARINGS ARE BASED ON SOLAR OBSERVATIONS. DISTANCES SHOWN ARE GROUND DISTANCES IN U.S. SURVEY FEET. SEE CORNER RESTORATION FIELD BOOK NO. 15 FOR MORE INFORMATION, THE APPROPRIATE PAGE(S) WILL BE SHOWN FOR EACH TIE.

FROM GPS STATION 94-10-02, S 35° 50' 26" W, 533.06 FEET TO A 2" INSIDE DIAMETER IRON PIPE, AS PER COUNTY SURVEY NO. 1144, RECOVERED ON THE COUNTY LINE (PAGE 41).

FROM GPS STATION 94-10-03, S 40° 18' 34" W, 493.91 FEET TO A SET 5/8" X 30" REBAR, WITH A RED PLASTIC CAP MARKED "BENTON CO. CONTROL PT." (SOLAR AZIMUTH POINT), THENCE N 56° 49' 13" E 785.40 FEET, TO A 1 1/4" INSIDE DIAMETER IRON PIPE, AS PER COUNTY SURVEY NO. 5892, RECOVERED AT/NEAR THE SOUTHWEST CORNER OF SECTION 5, IN TOWNSHIP 10 SOUTH, RANGE 7 WEST IN POLK COUNTY (PAGE 40).

FROM GPS STATION 94-10-04, S 82° 41' 47" E, 86.08 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP, RECOVERED AT THE NORTHWEST CORNER OF SECTION 6, IN TOWNSHIP 11 SOUTH, RANGE 6 WEST AS PER CORNER RESTORATION NO. 4019, THENCE S 89° 54' 59" W, 1295.47 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP, RECOVERED AT THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 10 SOUTH, RANGE 6 WEST, AS PER CORNER RESTORATION NO. 4017 (PAGES 59, 71-72).

FROM GPS STATION 94-10-05, S 9° 49' 11" W, 689.35 FEET TO A 2 5/8" BRASS CAP, AS PER CORNER RESTORATION NO. 694, RECOVERED AT/NEAR THE NORTHWEST CORNER OF SECTION 6, IN TOWNSHIP 11 SOUTH, RANGE 5 WEST, (PAGE 60).

FROM GPS STATION 94-10-06, N 88° 51' 30" W, 1020.55 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP, FOUND AT THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 10 SOUTH, RANGE 4 WEST, AS PER CORNER NO. 104100100 (PAGES 52, 61, 75-77).

FROM GPS STATION 94-10-08, S 64° 58' 12" E, 157.00 FEET TO A 3 1/4" U.S.F.S. ALUMINUM CAP, AS PER CORNER RESTORATION NO. 1367, RECOVERED AT/NEAR THE SOUTHWEST CORNER OF SECTION 6, IN TOWNSHIP 12 SOUTH, RANGE 6 WEST (PAGE 49).

FROM GPS STATION 94-10-09, S 57° 55' 24" W, 2277.57 FEET TO A 3" BRASS CAP, AS PER CORNER RESTORATION NO. 1118, RECOVERED AT/NEAR THE SOUTHWEST CORNER OF SECTION 29, IN TOWNSHIP 11 SOUTH, RANGE 7 WEST (PAGE 58).

FROM GPS STATION 94-10-10, N 79° 47' 48" W, 1416.36 FEET TO A SET 5/8" X 30" REBAR, WITH A RED PLASTIC CAP MARKED "BENTON CO. CONTROL PT." (SOLAR AZIMUTH POINT), THENCE N 79° 29' 49" E 2160.60 FEET, TO A 3 1/4" ALUMNIUM CAP, RECOVERED AT THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 12 SOUTH, RANGE 6 WEST, AS PER CORNER RESTORATION NO. 3758 (PAGE 47-48).

FROM GPS STATION 94-10-11, S 33° 18' 32" W, 411.00 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP FOUND AT THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 12 SOUTH, RANGE 5 WEST, AS PER CORNER NO. 125100100 (PAGE 42).

FROM GPS STATION 94-10-12, N 70° 44' 20" E, 659.64 FEET TO A 2" BRASS CAP, AS PER COUNTY SURVEY NO. 7477, RECOVERED AT/NEAR THE SOUTH QUARTER CORNER OF SECTION 36, IN TOWNSHIP 12 SOUTH, RANGE 5 WEST (PAGES 55-56).

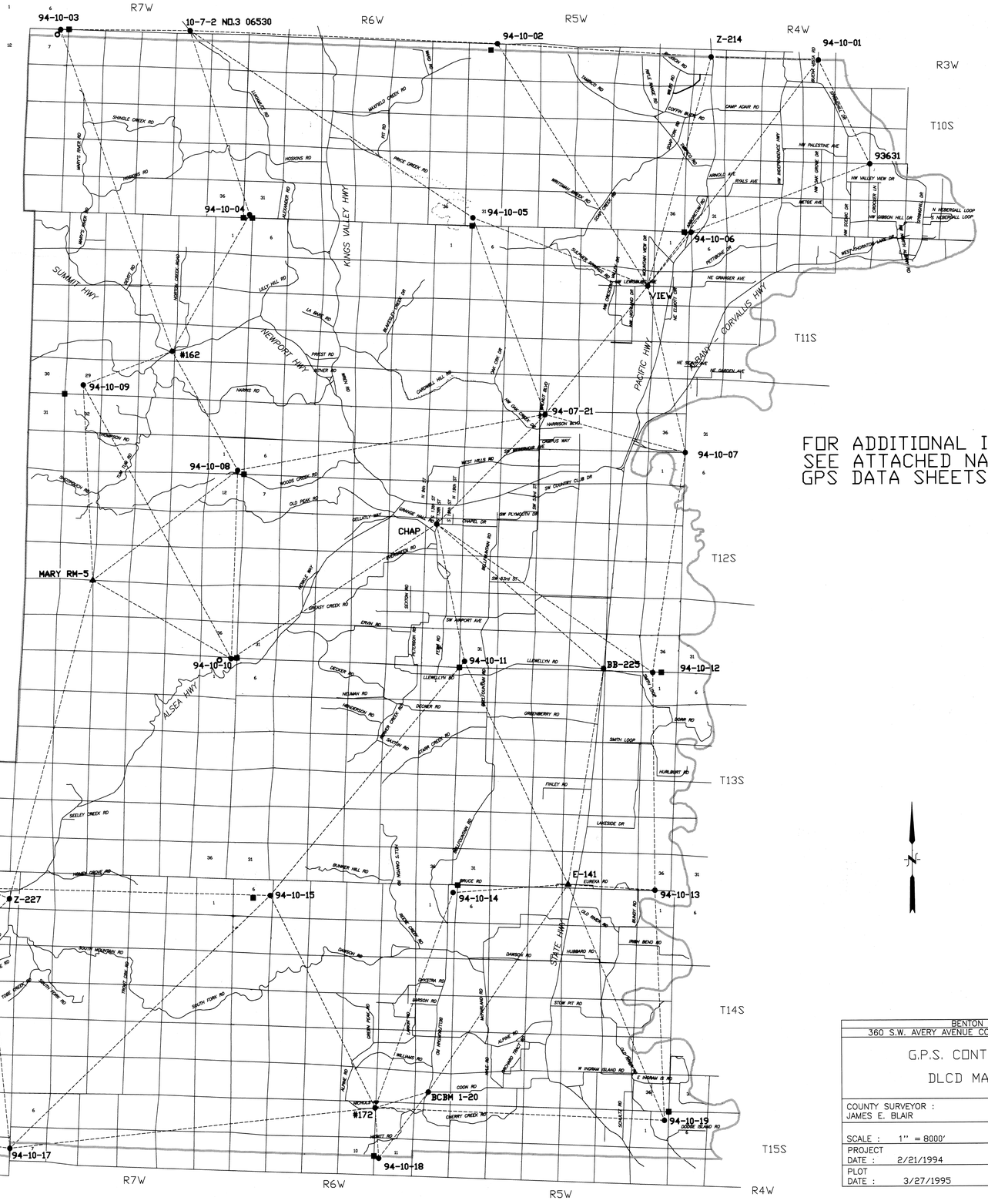
FROM GPS STATION 94-10-14, N 22° 35' 37" E, 433.36 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP RECOVERED AT THE NORTHWEST CORNER OF SECTION 6, IN TOWNSHIP 14 SOUTH, RANGE 5 WEST, AS PER CORNER RESTORATION NO. 4110, THENCE S 89° 25' 30" W, 617.03 FEET TO A 3 1/4" BENTON COUNTY BRASS CAP, FOUND AT THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 13 SOUTH, RANGE 5 WEST, AS PER CORNER NO. 135100100 (PAGE 43 AND 74).

FROM GPS STATION 94-10-15, S 78° 59' 15" W, 1786.10 FEET TO A B.L.M. BRASS CAP RECOVERED AT/NEAR THE CENTER OF SECTION 6, IN TOWNSHIP 14 SOUTH, RANGE 6 WEST (PAGES 53-54).

FROM GPS STATION 94-10-16, S 41° 01' 39" E, 634.86 FEET TO A B.L.M. BRASS CAP RECOVERED AT/NEAR THE SOUTHWEST CORNER OF SECTION 6, IN TOWNSHIP 15 SOUTH, RANGE 8 WEST (PAGE 46).

FROM GPS STATION, 94-10-18, N 68° 03' 08" W, 237.04 FEET TO A 2 1/2" LANE COUNTY BRASS CAP, RECOVERED AT/NEAR THE EAST QUARTER CORNER OF SECTION 10, IN TOWNSHIP 15 SOUTH, RANGE 6 WEST, AS PER CORNER NO. 156500540 (PAGES 44 AND 65).

FROM GPS STATION 94-10-19, N 19° 11' 39" E, 441.56 FEET TO A 7" X 11" X ? STONE, AS PER COUNTY SURVEY NO. 641, RECOVERED AT/NEAR THE SOUTHWEST CORNER OF SECTION 31, IN TOWNSHIP 14 SOUTH, RANGE 4 WEST (PAGE 45).



FOR ADDITIONAL INFORMATION SEE ATTACHED NARRATIVE AND GPS DATA SHEETS.

LEGEND:

- ▲ =OREGON HIGH PRECISION NETWORK STATION
- ● =BENTON COUNTY G.P.S. STATION
- ■ =FOUND MONUMENT AS NOTED
- ○ =SOLAR AZIMUTH POINT

BENTON COUNTY CONTROL SURVEYOR'S REPORT
CCR # 0008
FILE DATE 7-28-1995
FILE SIZE 36" x 24"
VERTICAL [X]
HORIZONTAL [X]

REGISTERED PROFESSIONAL LAND SURVEYOR
Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY PUBLIC WORKS
360 S.W. AVERY AVENUE CORVALLIS OREGON 97333-1192 757-6821

G.P.S. CONTROL SURVEY FOR DLCD MAPPING PROJECT

COUNTY SURVEYOR : JAMES E. BLAIR	PROJECT MANAGER : CURTIS J. LIESENFELT
SCALE : 1" = 8000'	DRAWN BY : MARK E. ANDERSON
PROJECT DATE : 2/21/1994	DRAWING FILE NAME : F:\SUR\COR\T-15\BC.DWG
PLOT DATE : 3/27/1995	SHEET 1 OF 1

NARRATIVE FOR COUNTY CONTROL REPORT NO. # 8

GPS CONTROL SURVEY
FOR THE
BENTON COUNTY DLCD MAPPING PROJECT

OCTOBER, 1994

PURPOSE

THE PURPOSE OF THIS SURVEY WAS TO ESTABLISH HORIZONTAL VALUES (STATE PLANE COORDINATES) ON THE TOWNSHIP CORNERS AND ALONG THE COUNTY LINE FOR MAPPING CONTROL. THIS NEED WAS MINIMIZED IN AREAS WHERE OTHER AGENCIES PROVIDED BENTON COUNTY WITH COORDINATES THAT WOULD SERVE OUR PURPOSE. THE COORDINATE VALUES WERE PROVIDED TO A PRIVATE CONTRACTOR, TO BE USED AS CONTROL FOR DIGITIZING APPROXIMATELY 260 ASSESSOR MAPS, IN THE EXCLUSIVE FARM USE AND FOREST CONSERVATION ZONING AREAS WITHIN BENTON COUNTY.

NO VERTICAL CONTROL WAS REQUIRED, BUT WE CHOSE TO INCLUDE IT FOR GPS TRAINING PURPOSES AND FUTURE CONTROL NEEDS. THE HORIZONTAL PRECISION NEEDED FOR MAPPING PURPOSES WAS ABOUT ONE FOOT, BUT IT WAS ANTICIPATED WE WOULD WORK TO CLOSER TOLERANCES FOR THE SAME REASONS WE CHOSE TO INCLUDE VERTICAL CONTROL. NO ATTEMPT WAS MADE TO FOLLOW FEDERAL GEODETIC CONTROL COMMITTEE (FGCC) SPECIFICATIONS FOR THIS PROJECT.

PLANNING

THIS PROJECT WAS PLANNED FOR GPS TO OCCUPY AS MANY EXISTING MONUMENTS THAT WERE AT OR NEAR THE FIRST CHOICE MAPPING CONTROL STATIONS (TOWNSHIP CORNERS OR POINTS ALONG THE COUNTY LINE). IF THE FIRST CHOICE STATION WAS NOT PRACTICAL A SECOND CHOICE STATION WOULD BE SELECTED. THIS WOULD BE A MONUMENT AT OR NEAR A PUBLIC LAND SURVEY CORNER OR THE COUNTY LINE. IF THE SELECTED STATION COULD NOT BE OCCUPIED A RANDOM GPS POINT WOULD BE ESTABLISHED AND A SOLAR OBSERVATION WOULD BE TAKEN FOR AZIMUTH. THE SELECTED STATION WOULD THEN BE TIED BY CONVENTIONAL GROUND TRAVERSE.
ALL GPS STATIONS OR POINTS WERE TO BE CONNECTED BY AT LEAST TWO BASELINES DURING DIFFERENT SESSIONS WITH DIFFERENT ANTENNA HEIGHTS.

FIELD OBSERVATIONS

THE EQUIPMENT USED FOR THIS PROJECT INCLUDED THREE TRIMBLE 4000SSE GEODETIC SURVEYOR SYSTEMS FOR THE GPS OBSERVATIONS, A WILD/LEICA T1610 ELECTRONIC THEODOLITE AND DI1600 EDM FOR THE SOLAR OBSERVATIONS AND GROUND TRAVERSES.

THE GPS OBSERVATIONS WERE CONDUCTED IN TWO AND THREE RECEIVER SESSIONS IN THE "FAST-STATIC" MODE. SATELLITE OBSERVATION TIMES WERE, FOUR SATELLITES, 30 MINUTES, FIVE SATELLITES, 18 MINUTES, SIX OR MORE SATELLITES, 10 MINUTES. THE RECEIVERS WERE SET TO COLLECT DATA EVERY 15 SECONDS WITH THE ELEVATION MASK SET AT 15 DEGREES. A SERIES OF OBSERVATIONS WERE PLANNED WHERE ONE RECEIVER WOULD STAY AT A CONTROL STATION SUCH AS "E-141" WHILE THE OTHER TWO RECEIVERS WOULD ROVE ABOUT IN A RADIAL MANNER. EACH STATION HAD A MINIMUM OF TWO OCCUPATIONS DURING DIFFERENT SESSIONS. A SESSION WOULD START AS SOON AS A MINIMUM OF TWO RECEIVERS WERE READY TO OBSERVE A PLANNED BASELINE. INSTRUMENT HEIGHTS WERE MEASURED AT THREE DIFFERENT PLACES ON THE ANTENNA IN METERS AND CHECKED WITH A POCKET TAPE IN FEET. THE GPS OBSERVATIONS BEGAN ON OCTOBER 10, 1994 AND ENDED ON OCTOBER 18, 1994. THE BASELINES FROM "MARY RM 5" TO "94-10-08" AND "MARY RM 5" TO "94-10-10" HAD TO BE RE-OBSERVED.

OFFICE PROCEDURES

THE GPS OBSERVATIONS WERE DOWNLOADED, CHECKED IN AND PROCESSED INTO BASELINES IN TRIMBLE'S *GPSURVEY, VERSION 1.2* SOFTWARE. THE ADJUSTMENT WAS DONE IN TRIMBLE'S *TRIMNET PLUS, VERSION 92.11* SOFTWARE. GPS OBSERVATIONS WERE DOWNLOADED AND CHECKED IN EVERY DAY. THE BASELINES WERE PROCESSED ABOUT EVERY OTHER DAY. LOOP CLOSURES WERE CHECKED AND FOUND TO BE ACCEPTABLE.

THE MINIMALLY CONSTRAINED ADJUSTMENT WHICH FIXED LATITUDE AND LONGITUDE ON "E-141" DID NOT FIND ANY SIGNIFICANT PROBLEMS WITH THE GPS OBSERVATIONS. THE FINAL VALUE FOR THE USER-DEFINED SCALAR FOR GPS OBSERVATIONS WAS 3.80 WHICH PROVIDED A NETWORK REFERENCE FACTOR OF 1.06.

DUE TO IN-HOUSE TIME CONSTRAINTS AN ADJUSTMENT WAS COMPLETED ON NOVEMBER 2, 1994 HOLDING "E-141", "MARY RM 5", "10-7-2 NO. 3 06530" AND "93631" FOR LATITUDE AND LONGITUDE, "E-141", "MARY RM 5", AND "9119" FOR ELLIPSOID HEIGHT AND "10-7-2 NO. 3 06530", "# 162", "BB 225" AND "Z-227" FOR ORTHOMETRIC HEIGHTS. THE RESULTING VALUES AND THE OBSERVED SOLAR AZIMUTHS WERE USED IN *WILDSOFT* (A COORDINATE GEOMETRY SOFTWARE PACKAGE) TO COMPUTE THE GROUND TIES TO THE APPROPRIATE MONUMENT AS DESCRIBED IN THE **PLANNING** SECTION. THE *LAPLACE* CORRECTION WAS DEEMED INSIGNIFICANT AND NOT APPLIED. *WILDSOFT* WAS ALSO USED TO COGO IN THE TOWNSHIP CORNERS AND POINTS ALONG THE COUNTY LINE THAT COULD NOT BE TIED OR OBSERVED.

AS A RESULT OF ADDITIONAL GPS TRAINING THIS OFFICE PARTICIPATED IN, THE ADJUSTMENT PROCESS WAS REVISITED AND MADE TO CONFORM TO THE

GPS OBSERVATIONS. A DECISION WAS MADE TO NOT IMPROVE THE GEOID MODEL BY USE OF A CORRELATED RESIDUAL MODEL BECAUSE THE RESULTANT ERROR ESTIMATES WOULD BE UNREALISTICALLY SMALL GIVEN THE QUALITY AND QUANTITY OF POTENTIAL VERTICAL CONTROL FOR THIS PROJECT. THE FINAL GEOID HEIGHTS AS SHOWN ON THE DATA SHEETS WILL VARY FROM UNADJUSTED "GEOID 93W" HEIGHTS BECAUSE BOTH ORTHOMETRIC AND ELLIPSOID HEIGHTS WERE FIXED IN THE FULLY CONSTRAINED ADJUSTMENT.

STATIONS "9119", "CHAP" AND "VIEW" WERE NOT FIXED HORIZONTALLY BECAUSE THEY DID NOT FIT AS WELL AS EXPECTED AND THEIR INCLUSION WOULD SIGNIFICANTLY INCREASE THE AMOUNT OF ERROR IN THIS PROJECT. THE BASELINE WITH THE POOREST HORIZONTAL PRECISION IS FROM "#172" TO "94-10-18" WITH A RATIO OF 1:399202.

STATIONS "10-7-2 NO. 3 06530" AND "94-07-21" WERE NOT FIXED FOR ORTHOMETRIC HEIGHT BECAUSE OF UNANSWERED QUESTIONS ABOUT THE PRECISION OF THE CONTROL USED TO ESTABLISH "10-7-2 NO. 3 06530" AND THE METHOD(S) USED TO ESTABLISH "94-07-21".

AS A RESULT OF THIS READJUSTMENT THE *WILDSOFT* COORDINATES AND ELEVATIONS FOR THESE 33 STATIONS WERE EDITED. THESE EDITS HAD AN INSIGNIFICANT EFFECT ON THE PRECISION OF THIS PROJECT.

BENTON COUNTY PUBLIC WORKS
360 SW AVERY AVE..
CORVALLIS, OR. 97333-1192
PHONE: (503) 757-6821
FAX: (503) 757-6891

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Curtis J. Liesenfelt

OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213

LICENSE RENEWAL 12/31/1996

NETWORK ADJUSTMENT MODULE FLOWCHART DATED 1991 FROM THE *TRIMNET PLUS* MANUAL. A NEW ADJUSTMENT WAS COMPLETED ON MARCH 9, 1995 HOLDING THE SAME FOUR STATIONS FOR LATITUDE AND LONGITUDE, STATIONS "# 162", "BB 225", "BCBM 1-20", "CHAP", "E-141", "Z-214" AND "Z-227" FOR ORTHOMETRIC HEIGHT AND STATIONS "94-10-16", "E-141", "MARY RM 5" AND "Z-214" FOR ELLIPSOID HEIGHT, EVEN THOUGH THERE WERE NO PUBLISHED ELLIPSOID HEIGHTS FOR STATIONS "94-10-16" AND "Z-214".

TABLE OF FIXED VALUES

STATION	LATITUDE / LONGITUDE / SOURCE / ORDER	ELLIPSOID HEIGHT / SOURCE	ORTHOMETRIC HEIGHT / SOURCE / ORDER
E-141	44° 23' 28.35830" N / 123° 17' 27.95859" W / N.G.S. / "B"	59.078m / N.G.S.	80.7155m / O.S.H.D. LINE 307 B / SECOND
MARY RM 5	44° 30' 16.05036" N / 123° 33' 08.19724" W / N.G.S. / "B"	1228.225m / N.G.S.	
10-7-2 NO.3 06530	44° 43' 31.36345" N / 123° 30' 54.56456" W / C.C.R. #4 / "C" 1		
93631	44° 40' 46.24026" N / 123° 07' 57.63672" W / C.C.R. #6 / "C" 1		
94-10-16		60.9815m / C.C.R. #8 / N.A.	
Z-214		44.1742m / C.C.R. #8 / N.A.	65.6425m / O.S.H.D. LINE 307 B / SECOND
# 162			192.0275m / BEN. CO. / SECOND
BB 225			75.5412m / O.S.H.D. LINE 307 B / SECOND
BCBM 1-20			118.4800m / BEN. CO. / SECOND
CHAP			80.9557m / BEN. CO. / SECOND
Z-227			89.2234m / O.S.H.D. LINE 317 / SECOND

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: BB 225

STATION NAME: BB 225
ALTERNATE NAMES: 197, WR 39 AND 346

SET DATE: 1909
VISIT DATE: 10/17/1994

TOWNSHIP: 13S
RANGE: 5W
SECTION: 3

MONUMENT DESCRIPTION:
FOUND 3 3/4" BRASS CAP SET IN A 1.5"X1.5" CONCRETE POST 1 FOOT ABOVE GROUND SURFACE.

REFERENCE DOCUMENTS:
BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 28' 33.89440" N	±0.007M
LONGITUDE:	123° 16' 23.86672" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2501004.439±
Y:	-3811285.198±
Z:	4446029.879±

SPC: OREGON NORTH ZONE

NORTHING:	93731.241	±0.007
EASTING:	2279401.395	±0.005
GRID CONVERGENCE:	-1° 58' 00.4"	
SCALE FACTOR:	0.99996711	
COMBINED FACTOR:	0.99995866	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	53.925	±0.013
GEOID HEIGHT:	-21.616	±0.013
ORTHOMETRIC ELEVATION:	75.541	FIXED

DIRECTIONS:
THE STATION IS ON THE WEST SIDE OF HIGHWAY 99 AND AT THE NORTH END OF SMITH LOOP. U.S.B.M. SIGN POST 2 FEET WEST.

COMMENTS:
THIS IS A SECOND ORDER BENCH MARK AND IT HAS MULTIPLE VALUES PUBLISHED FOR IT.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: BCBM 1-20

STATION NAME: BCBM 1-20
ALTERNATE NAME: 333

SET DATE: 1968
VISIT DATE: 10/10/1994

TOWNSHIP: 14S
RANGE: 6W
SECTION: 36

MONUMENT DESCRIPTION:
FOUND 3" BRASS CAP

REFERENCE DOCUMENTS:
BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44°18' 26.42450"N	±0.007M
LONGITUDE:	123°21' 48.44492"W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2514229.523±
Y:	-3818326.138±
Z:	4432661.188±

SPC: OREGON NORTH ZONE

NORTHING:	75242.908	±0.007
EASTING:	2271568.206	±0.005
GRID CONVERGENCE:	-2° 01'50.6"	
SCALE FACTOR:	1.00000665	
COMBINED FACTOR:	0.99999144	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	96.978	±0.012
GEOID HEIGHT:	-21.502	±0.012
ORTHOMETRIC ELEVATION:	118.480	FIXED

DIRECTIONS:
THE BENCH MARK FALLS 45 FEET NORTH OF THE CENTERLINE OF COON ROAD AND 31 FEET EAST OF THE CENTERLINE OF BELLFOUNTAIN ROAD.

COMMENTS:
THIS IS A BENTON COUNTY BENCH MARK.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: CHAP

STATION NAME: CHAPEL
ALTERNATE NAME:

SET DATE: 1989
VISIT DATE: 10/18/1994

TOWNSHIP: 12S
RANGE: 6W
SECTION: 13

MONUMENT DESCRIPTION:
FOUND 3 1/4" BRASS CAP, SET IN CONCRETE, 19" BELOW GROUND SURFACE, MARKED "GPS CHAPEL 1989".

REFERENCE DOCUMENTS:
SEE CCR NOS. 4 & 7

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 31' 50.19288" N	±0.005M
LONGITUDE:	123° 22' 05.07516" W	±0.004M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2504971.906±
Y:	-3803599.024±
Z:	4450355.346±

SPC: OREGON NORTH ZONE

NORTHING:	100049.599	±0.005
EASTING:	2272080.384	±0.004
GRID CONVERGENCE:	-2° 02' 02.4"	
SCALE FACTOR:	0.99995616	
COMBINED FACTOR:	0.99994682	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	59.566	±0.010
GEOID HEIGHT:	-21.390	±0.010
ORTHOMETRIC ELEVATION:	80.956	FIXED

DIRECTIONS:
THE POINT IS LOCATED ON FERN ROAD, 0.1 MI. SOUTH OF THE INTERSECTION OF FERN, 13TH AND CHAPEL ROAD. THE POINT IS LOCATED AT THE APPROXIMATE MID-POINT OF A CURVE AND ON THE EAST SHOULDER OF THE ROAD, (APPROXIMATELY 3 FEET EAST OF PAVEMENT EDGE, A FARM ACCESS ROAD IS ±85 FEET SOUTH OF POINT).

COMMENTS:
THIS IS A MULTI-VALUED STATION.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

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BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: E 141

STATION NAME: E 141
ALTERNATE NAME: 187

SET DATE: 1941
VISIT DATE: 10/10/1994

TOWNSHIP: 13S
RANGE: 5W
SECTION: 34

MONUMENT DESCRIPTION:
FOUND 3 1/2" BRASS CAP SET IN A 1'X1' CONCRETE POST, 9" ABOVE GROUND SURFACE.

REFERENCE DOCUMENTS:
NGS OREGON HIGH PRECISION NETWORK, AND BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 23' 28.35830" N	FIXED
LONGITUDE:	123° 17' 27.95859" W	FIXED

GEOCENTRIC CARTESIAN COORDINATES

X:	-2505814.669
Y:	-3816029.941
Z:	4439299.154

SPC: OREGON NORTH ZONE

NORTHING:	84354.917	FIXED
EASTING:	2277660.074	FIXED
GRID CONVERGENCE:	-1° 58' 45.9"	
SCALE FACTOR:	0.99998593	
COMBINED FACTOR:	0.99997667	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	59.078	FIXED
GEOID HEIGHT:	-21.638	FIXED
ORTHOMETRIC ELEVATION:	80.716	FIXED

DIRECTIONS:
FROM THE INTERSECTION OF BRUCE ROAD AND HIGHWAY 99, GO WESTERLY ON BRUCE ROAD 0.3 MI. TO THE STATION ON THE NORTH SIDE OF THE ROAD, WEST OF RAILROAD TRACKS.

COMMENTS:
THE ORTHOMENTRIC HEIGHT THAT WAS HELD FIXED IS PUBLISHED BY THE OREGON STATE HIGHWAY DEPARTMENT. REFER TO E 141 BENTON COUNTY VERTICAL CONTROL BOOK, CHAPTER 307B.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: MARY RM 5

STATION NAME: MARY RM 5
ALTERNATE NAME:

SET DATE: 1972
VISIT DATE: 10/17/1994

TOWNSHIP: 12S
RANGE: 7W
SECTION: 28

MONUMENT DESCRIPTION:
FOUND 3 1/2" U.S.C. AND G.S. BRASS DISK SET IN CONCRETE, FLUSH WITH GROUND SURFACE. THE DISK IS STAMPED "MARY 1903 NO. 5 1972".

REFERENCE DOCUMENTS:
NGS OREGON HIGH PRECISION NETWORK.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 30' 16.05036" N	FIXED
LONGITUDE:	123° 33' 08.19724" W	FIXED

GEOCENTRIC CARTESIAN COORDINATES

X:	-2518773.910
Y:	-3797918.710
Z:	4449102.485

SPC: OREGON NORTH ZONE

NORTHING:	97682.194	FIXED
EASTING:	2257339.375	FIXED
GRID CONVERGENCE:	-2° 09' 52.7"	
SCALE FACTOR:	0.99996130	
COMBINED FACTOR:	0.99976876	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	1228.225	FIXED
GEOID HEIGHT:	-20.930	±0.055
ORTHOMETRIC ELEVATION:	1249.155	±0.055

DIRECTIONS:
THE STATION IS LOCATED ON TOP OF MARY'S PEAK. TO REACH FROM PHILOMATH GO WEST ON HIGHWAY 34 TO A FORK IN HIGHWAY, FROM FORK GO LEFT ON HIGHWAY 20 FOR 8.86 MI. TO A PAVE CROSS ROAD JUST BEFORE REACHING ROAD SUMMIT OF COAST RANGE, AND SIGN "MARY'S PEAK ROAD", TURN RIGHT AND FOLLOW U.S.F.S. ROAD NO. 30 FOR 5.35 MI., CONTINUE AHEAD ON ROAD NO. 3010 (UP GRADE) FOR 4.05 MI. TO ROAD END AT PARKING LOT AND A LOCKED GATE (COMBINATION CAN BE OBTAINED FROM U.S.F.S. AT 1-503-487-5811). PASS THROUGH GATE SOUTHERLY ON GRAVEL ROAD FOR 0.65 MI TO END AT RADIO TOWER THE STATION IS LEFT OF THE END OF ROAD.

COMMENTS:
THIS IS THE HIGHEST POINT IN THE COAST RANGE AND HAS A GREAT VIEW, BUT RADIO AND/OR ELECTRICAL INTERFERENCE FROM ALL THE ANTENNAS MAY CAUSE SOME GPS RECEIVER PROBLEMS.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
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BIVARIATE SIGMA SCALER=2.45

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BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: VIEW

STATION NAME: MT. VIEW
ALTERNATE NAME:

SET DATE: 1989
VISIT DATE: 10/13/1994

TOWNSHIP: 11S
RANGE: 5W
SECTION: 11

MONUMENT DESCRIPTION:
FOUND 3 1/4" BRASS CAP 13" BELOW GROUND SURFACE, IN A MONUMENT BOX. BRASS CAP IS STAMPED "GPS MT. VIEW 1989".

REFERENCE DOCUMENTS:
SEE CCR NOS. 4 & 7

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 37' 44.23753" N	±0.006M
LONGITUDE:	123° 15' 15.22213" W	±0.05M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2493204.488±
Y:	-3802156.845±
Z:	4458142.577±

SPC: OREGON NORTH ZONE

NORTHING:	110656.396	±0.006
EASTING:	2281496.528	±0.005
GRID CONVERGENCE:	-1° 57' 11.7"	
SCALE FACTOR:	0.99993867	
COMBINED FACTOR:	0.99992865	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	63.915	±0.012
GEOID HEIGHT:	-21.487	±0.055
ORTHOMETRIC ELEVATION:	85.402	±0.056

DIRECTIONS:
THE STATION IS LOCATED ON THE SOUTH SIDE OF THE INTERSECTION OF LEWISBURG ROAD AND MOUNTAIN VIEW DRIVE, ON THE EAST SIDE OF A GRAVEL DRIVEWAY TO A GRASS FIELD. THE MONUMENT IS 0.7 FOOT SOURTHERLY FROM THE SOUTHERLY EDGE OF PAVEMENT AND 5 FEET EASTERLY FROM THE WESTERLY FOG LINE ON MOUNTAIN VIEW DRIVE EXTENDED SOUTHERY.

COMMENTS:
THIS IS A MULTI-VALUED STATION.

STATEMENT PER ORS 209.250 (6) (G):
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GPS STATION REPORT

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: Z 214

STATION NAME: Z 214
ALTERNATE NAME: 219

SET DATE: 1943
VISIT DATE: 10/13/1994

TOWNSHIP: 10S
RANGE: 4W
SECTION: 7

MONUMENT DESCRIPTION:
FOUND 3" U.S. COAST AND GEODETIC SURVEY AND STATE SURVEY BRASS CAP, MARKED "STATION NO. Z 214 ELEVATION RESET 1941 215 FEET DAT. 1929, 1934, 1941". SET IN THE TOP OF A CONCRETE COUNTY LINE POST.

REFERENCE DOCUMENTS:
BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 43' 12.79607" N	±0.007M
LONGITUDE:	123° 13' 18.40673" W	±0.007M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2487136.322±
Y:	-3797591.261±
Z:	4465340.851±

SPC: OREGON NORTH ZONE

NORTHING:	120704.707	±0.008
EASTING:	2284411.417	±0.007
GRID CONVERGENCE:	-1° 55' 48.9"	
SCALE FACTOR:	0.99992504	
COMBINED FACTOR:	0.99991811	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	44.174	FIXED
GEOID HEIGHT:	-21.468	FIXED
ORTHOMETRIC ELEVATION:	65.642	FIXED

DIRECTIONS:
FROM THE INTERSECTION OF HIGHWAY 99W AND ROBISON ROAD GO NORTHERLY ON HIGHWAY 99W 0.5 MI. TO THE COUNTY LINE, POST ON THE WESTERLY SIDE OF HIGHWAY. THE MONUMENT IS 13 FEET WESTERLY FROM SIGN POST, AND IS LEANING SLIGHTLY TO THE NORTH.

COMMENTS:
THIS IS A SECOND ORDER OREGON STATE HIGHWAY DIVISION BENCH MARK. THIS MONUMENT APPEARS TO HAVE BEEN STRUCK BY FARM EQUIPMENT PRIOR TO THIS OBSERVATION.

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GPS STATION REPORT

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: Z 227

STATION NAME: Z 227
ALTERNATE NAME: 255

SET DATE: 1/1/1937
VISIT DATE: 10/17/1994

TOWNSHIP: 14S
RANGE: 8W
SECTION: 1

MONUMENT DESCRIPTION:
FOUND 2 3/4" BRASS CAP SET IN CONCRETE WALK ON THE WEST SIDE OF BRIDGE, NEAR THE SOUTH END OF THE STEEL SUPPORT.

REFERENCE DOCUMENTS:
BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 22' 48.86650" N	±0.007M
LONGITUDE:	123° 35' 55.49206" W	±0.007M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2526743.860±
Y:	-3803235.568±
Z:	4438434.188±

SPC: OREGON NORTH ZONE

NORTHING:	84030.153	±0.007
EASTING:	2253117.396	±0.007
GRID CONVERGENCE:	-2° 11' 51.3"	
SCALE FACTOR:	0.99998852	
COMBINED FACTOR:	0.99997787	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	67.919	±0.014
GEOID HEIGHT:	-21.304	±0.014
ORTHOMETRIC ELEVATION:	89.223	FIXED

DIRECTIONS:
FROM THE INTERSECTION OF HIGHWAY 34 AND THE ALSEA-DEADWOOD HIGHWAY IN ALSEA, GO ±1,000 FEET SOUTHERLY TO THE BRIDGE ACROSS THE ALSEA RIVER.

COMMENTS:
THIS IS A SECOND ORDER OREGON STATE HIGHWAY DIVISION BENCH MARK.

STATEMENT PER ORS 209.250 (6) (G):
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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: #162

STATION NAME: #162
ALTERNATE NAME:

SET DATE: 4/15/1994
VISIT DATE: 10/12/1994

TOWNSHIP: 11S
RANGE: 7W
SECTION: 22

MONUMENT DESCRIPTION:
FOUND P.K. NAIL AND SHINER FOR THE STATION.

REFERENCE DOCUMENTS:

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 35' 51.68137" N	±0.005M
LONGITUDE:	123° 31' 02.31664" W	±0.004M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2512025.872±
Y:	-3792766.943±
Z:	4455744.570±

SPC: OREGON NORTH ZONE

NORTHING:	107930.144	±0.005
EASTING:	2260504.803	±0.004
GRID CONVERGENCE:	-2° 08' 23.4"	
SCALE FACTOR:	0.99994391	
COMBINED FACTOR:	0.99991708	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	171.145	±0.013
GEOID HEIGHT:	-20.882	±0.013
ORTHOMETRIC ELEVATION:	192.028	FIXED

DIRECTIONS:
FROM PHILOMATH FOLLOW HWY. 20 TO BLODGETT, THE STATION IS ON THE SOUTH SIDE OF HWY. 20, ACROSS FROM PORTER ROAD, APPROXIMATELY 0.2 MI. EAST OF THE BLODGETT "COUNTRY STORE". THE STATION FALLS IN THE CENTER OF A PAVED DRIVEWAY TO SEVERAL HOUSES.

COMMENTS:
THIS STATION WAS ESTABLISHED BY A PRIVATE CONTRACTOR, FOR A MAPPING CLIENT, WITHOUT THE USE OF PUBLIC FUNDS, SO NO REPORT WAS FILED IN THE COUNTY SURVEYOR'S OFFICE.

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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BENTON COUNTY
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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 172

STATION NAME: 172
ALTERNATE NAME:

SET DATE: 4/15/1995
VISIT DATE: 10/10/1994

TOWNSHIP: 15S
RANGE: 6W
SECTION: 3

MONUMENT DESCRIPTION:
FOUND 5/8" REBAR AND YELLOW PLASTIC CAP MARKED "EAGLE GPS CONTROL PT. (SEE COMMENTS)

REFERENCE DOCUMENTS:

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 17' 59.69999" N	±0.006M
LONGITUDE:	123° 23' 35.41432" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2516545.418±
Y:	-3817531.504±
Z:	4432104.425±

SPC: OREGON NORTH ZONE

NORTHING:	74502.995	±0.006
EASTING:	2269169.274	±0.005
GRID CONVERGENCE:	-2° 03' 06.5"	
SCALE FACTOR:	1.00000858	
COMBINED FACTOR:	0.99998584	

VERTICAL DATUM: NGVD 29/47		*GEOID MODEL: 93W*
ELLPSOID HEIGHT:	145.047	±0.013
GEOID HEIGHT:	-21.461	±0.036
ORTHOMETRIC ELEVATION:	166.508	±0.037

DIRECTIONS:
THE STATION IS ± 2 MILES SOUTH OF ALPINE ON BELLFOUNTAIN ROAD, TURN WEST ON NICHOLS ROAD (GRAVEL), ±1.5 MILES TO THE DRIVEWAY AT 24283 NICHOLS ROAD. THE STATION IS IN THE APPROXIMATE CENTERLINE, CENTERLINE INTERSECTION OF NICHOLS ROAD AND THE GRAVEL DRIVEWAY TO THE NORTH.

COMMENTS:
THE STATION IS A 5/8" REBAR SET THEN ABANDONED PRIOR TO GPS OCCUPATION BY A PRIVATE CONTRACTOR.

IN JANUARY OF 1995 THE COUNTY GRADED NICHOLS ROAD AND MAY HAVE DISTURBED THIS STATION.

STATEMENT PER ORS 209.250 (6) (G):
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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 0043

STATION NAME: 10-7-2 NO. 3 06530
ALTERNATE NAME:

SET DATE: 4/26/1993
VISIT DATE: 10/12/1994

TOWNSHIP: 10S
RANGE: R7W
SECTION: 2

MONUMENT DESCRIPTION:
FOUND 3 1/4" ALUMINUM CAP AS PER CCR NO. 4. MONUMENT IS IN A MONUMENT BOX 8" BELOW GROUND SURFACE.

REFERENCE DOCUMENTS:
CCR NO. 4

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 43' 31.36345" N	FIXED
LONGITUDE:	123° 30' 54.56456" W	FIXED

GEOCENTRIC CARTESIAN COORDINATES

X:	-2506350.882±
Y:	-3784507.541±
Z:	4465792.507±

SPC: OREGON NORTH ZONE

NORTHING:	122102.455	FIXED
EASTING:	2261205.045	FIXED
GRID CONVERGENCE:	-2° 08' 17.9"	
SCALE FACTOR:	0.99992434	
COMBINED FACTOR:	0.99990752	

VERTICAL DATUM: NGVD 29/47		*GEOID MODEL: 93W*
ELLPSOID HEIGHT:	107.299	±0.019
GEOID HEIGHT:	-20.689	±0.084
ORTHOMETRIC ELEVATION:	127.988	±0.085

DIRECTIONS:
THE STATION IS LOCATED ABOUT 14 MILES NORTHWEST OF CORVALLIS. FROM THE BENTON/POLK COUNTY LINE ON LUCKIAMUTE ROAD, TRAVEL NORTHWEST ABOUT 0.4 MI TO THE STATION ON THE RIGHT. THE MONUMENT IS 11 FEET SOUTHWESTERLY OF AN ORANGE FIBERGLASS POST. THE STATION FALLS IN THE NORTHEAST PORTION OF SAID ROAD.

COMMENTS:

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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 9119

STATION NAME: 9119
ALTERNATE NAME: 148600640

SET DATE: 3/10/1987
VISIT DATE: 10/11/1994

TOWNSHIP: 14S
RANGE: 8W
SECTION: 1

MONUMENT DESCRIPTION:
FOUND 3 1/4" U.S.F.S. ALUMNIUM CAP MONUMENT 9" BELOW GROUND SURFACE.

REFERENCE DOCUMENTS:
CORNER RESTORATION NO. 3908 AND CCR NO. 1

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 22' 56.66174" N	±0.008M
LONGITUDE:	123° 36' 49.61720" W	±0.007M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2527646.986±
Y:	-3802429.824±
Z:	4438603.308±

SPC: OREGON NORTH ZONE

NORTHING:	84316.639	±0.008
EASTING:	2251929.414	±0.007
GRID CONVERGENCE:	-2° 12' 29.7"	
SCALE FACTOR:	0.99998800	
COMBINED FACTOR:	0.99997799	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	63.844	±0.011M
GEOID HEIGHT:	-21.308	±0.029
ORTHOMETRIC ELEVATION:	85.152	±0.030

DIRECTIONS:
FROM THE INTERSECTION OF THE ALSEA HIGHWAY AND THE DEADWOOD HIGHWAY IN ALSEA. FOLLOW ALSEA HIGHWAY WEST 0.78 MI. TO A GATED GRAVEL DRIVE ON THE LEFT. THE STATION IS S 18° E 21 FEET FROM THE EASTERLY GATE POST.

COMMENTS:
FOR ADDITIONAL INFORMATION SEE CORNER RESTORATION FILE NO. 148600640.

STATEMENT PER ORS 209.250 (6) (G):
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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 93631

STATION NAME: SE COR SEC 23
ALTERNATE NAME: POINT #16, STATION NO.9 IN CCR #3, CORNER NO. 104600300

SET DATE: 1969
VISIT DATE: 10/13/1994

TOWNSHIP: 10S
RANGE: 4W
SECTION: 23

MONUMENT DESCRIPTION:
FOUND 7/8" IRON ROD SET IN CONCRETE.

REFERENCE DOCUMENTS:
BENTON COUNTY CORNER NO. 104600300, CORNER RESTORATION NO. 3725, CCR NOS. 3 & 6.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 40' 46.24026" N	FIXED
LONGITUDE:	123° 07' 57.63672" W	FIXED

GEOCENTRIC CARTESIAN COORDINATES

X:	-2482972.901±
Y:	-3804128.543±
Z:	4462136.203±

SPC: OREGON NORTH ZONE

NORTHING:	115949.627	FIXED
EASTING:	2291319.209	FIXED
GRID CONVERGENCE:	-1° 52' 01.4"	
SCALE FACTOR:	0.99993081	
COMBINED FACTOR:	0.99992143	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	59.803	±0.024
GEOID HEIGHT:	-21.741	±0.065
ORTHOMETRIC ELEVATION:	81.544	±0.069

DIRECTIONS:
THE CORNER IS APPROXIMATELY 200 FEET NORTH-NORTHWESTERLY FROM THE HOUSE AT 3257 COUNTRYMAN CIRCLE. THERE IS A 3" TO 4" SCRUB OAK NEXT TO THE STATION.

COMMENTS:
THIS MONUMENT MAY NOT BE AT THE ACTUAL SECTION CORNER. THE BENTON COUNTY CORNER RESTORATION CREW WILL INVESTIGATE THIS AS TIME PERMITS.

STATEMENT PER ORS 209.250 (6) (G):
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CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-07-21

STATION NAME: 94-07-21
ALTERNATE NAME: CITY OF CORVALLIS BENCH MARK NO. 441.

SET DATE:
VISIT DATE: 10/12/1994

TOWNSHIP: 11S
RANGE: 5W
SECTION: 33

MONUMENT DESCRIPTION:
FOUND 2" BRASS CAP IN CONCRETE.

REFERENCE DOCUMENTS:
BENTON COUNTY VERTICAL CONTROL.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 34' 35.63396" N	±0.006M
LONGITUDE:	123° 18' 33.77298" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2499109.280±
Y:	-3803173.086±
Z:	4453999.292±

SPC: OREGON NORTH ZONE

NORTHING:	104989.130	±0.006
EASTING:	2276920.383	±0.005
GRID CONVERGENCE:	-1° 59' 32.5"	
SCALE FACTOR:	0.99994762	
COMBINED FACTOR:	0.99993720	

VERTICAL DATUM: NGVD 29/47		*GEOID MODEL: 93W*
ELLPSOID HEIGHT:	66.500	±0.013
GEOID HEIGHT:	-21.446	±0.049
ORTHOMETRIC ELEVATION:	87.946	±0.050

DIRECTIONS:
THE MONUMENT IS 605 FEET NORTHERLY FROM THE ENTRANCE TO THE O.S.U. HORSE CENTER AND 28.5 FEET WESTERLY FROM THE CENTER OF A BIKE PATH. SEE THE DESCRIPTION FOR CITY BENCH MARK NO. 441 FOR MORE INFORMATION.

COMMENTS:
CITY ELEVATION FOR THIS POINT IS 288.632 FEET.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Curtis J. Liesenfelt

OREGON
JULY 17, 1986
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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-01

STATION NAME: 94-10-01
ALTERNATE NAME:

SET DATE: ? ?
VISIT DATE: 10/13/1994

TOWNSHIP: 10S
RANGE: 4W
SECTION: 10

MONUMENT DESCRIPTION:
FOUND OLD 1" INSIDE DIAMETER IRON PIPE WITH A BROKEN TOP.

REFERENCE DOCUMENTS:

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 43' 12.53619" N	±0.009M
LONGITUDE:	123° 09' 47.32483" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2483247.787±	
Y:	-3800133.034±	
Z:	4465327.834±	

SPC: OREGON NORTH ZONE

NORTHING:	120541.912	±0.008
EASTING:	2289053.763	±0.006
GRID CONVERGENCE:	-1° 53' 19.2"	
SCALE FACTOR:	0.99992504	
COMBINED FACTOR:	0.99991975	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	33.776	±0.019
GEOID HEIGHT:	-21.634	±0.050
ORTHOMETRIC ELEVATION:	55.41	±0.053

DIRECTIONS:
THE STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF BUENA VISTA ROAD AND THE GRAVEL DRIVEWAY TO 8801 BUENA VISTA ROAD. FROM THE INTERSECTION OF SPRINGHILL ROAD AND BUENA VISTA ROAD, TRAVEL NORTH ON BUENA VISTA 0.627 MILES TO THE COUNTY LINE. THE MONUMENT IS ON THE EAST SIDE OF THE ROAD, AND 0.75 FEET EAST OF THE CONCRETE COUNTY LINE POST.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
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BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-02

STATION NAME: 94-10-02
ALTERNATE NAME:

SET DATE: 9/14/94 BY BENTON COUNTY
VISIT DATE: 10/12/94

TOWNSHIP: 10S
RANGE: 5W
SECTION: 7

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT". THE PLASTIC CAP IS 6" BELOW GROUND SURFACE.

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH SEE, CORNER RESTORATION FIELD BOOK NO. 15, PAGE 41.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 43' 17.40545" N	±0.006M
LONGITUDE:	123° 21' 07.64735" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2495745.400±
Y:	-3791887.214±
Z:	4465498.264±

SPC: OREGON NORTH ZONE

NORTHING:	121203.039	±0.006
EASTING:	2274096.204	±0.005
GRID CONVERGENCE:	-2° 01' 21.7"	
SCALE FACTOR:	0.99992486	
COMBINED FACTOR:	0.99990539	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	124.203	±0.014
GEOID HEIGHT:	-21.022	±0.062
ORTHOMETRIC ELEVATION:	145.225	±0.063

DIRECTIONS:
FROM THE INTERSECTION OF MAXFIELD CREEK ROAD AND WARD ROAD, FOLLOW MAXFIELD CREEK ROAD NORTHEASTERLY 1.63 MILES TO DUNN FOREST ROAD. THE STATION IS 3.4 FEET NORTHWEST OF A BARBED WIRE FENCE AND 26.1 FEET SOUTHEAST OF A DEAD END SIGN.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
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BIVARIATE SIGMA SCALER=2.45

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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-03

STATION NAME: 94-10-03
ALTERNATE NAME:

SET DATE: 9/14/1994 BY BENTON COUNTY
VISIT DATE: 10/12/1994

TOWNSHIP: 10S
RANGE: 7W
SECTION: 7

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 43' 19.46910" N	±0.007M
LONGITUDE:	123° 34' 55.39265" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2511037.157±
Y:	-3781984.258±
Z:	4465757.949±

SPC: OREGON NORTH ZONE

NORTHING:	121935.510	±0.007
EASTING:	2255895.489	±0.006
GRID CONVERGENCE:	-2° 11' 08.7"	
SCALE FACTOR:	0.99992478	
COMBINED FACTOR:	0.99985754	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	428.924	±0.024
GEOID HEIGHT:	-20.615	±0.094
ORTHOMETRIC ELEVATION:	449.539	±0.095

DIRECTIONS:
FROM THE INTERSECTION OF SUMMIT HIGHWAY (#180) AND LOGSDEN ROAD (IN NASHVILLE) FOLLOW LOGSDEN ROAD PAST THE END OF PAVEMENT 3.08 MI. TO GREEN MOUNTAIN ROAD, TURN RIGHT AND FOLLOW (THROUGH YELLOW GATE) FOR 1.86 MI., TAKE RIGHT FORK AND GO AN ADDITIONAL .177 MI., TURN RIGHT AT GREEN MOUNTAIN ROAD SIGN AND FOLLOW FOR 0.389 MI., TURN LEFT ON HARMSEN ROAD AND FOLLOW FOR .036 MI. TO A YELLOW GATE, CONTINUE FOR AN ADDITIONAL 1.2 MI. TO A CONCRETE BRIDGE, CONTINUE FOR AN ADDITIONAL 1.63 MI. TO THE STATION WHICH IS ON THE RIGHT. THE SECTION CORNER IS AN ADDITIONAL 0.066 MI. AND AT THE TOP OF A CUT BANK ON THE LEFT (END OF GRAVEL).

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-04

STATION NAME: 94-10-04
ALTERNATE NAME:

SET DATE: 9/26/1994 BY BENTON COUNTY
VISIT DATE: 10/12/1994

TOWNSHIP: 10S
RANGE: 6W
SECTION: 31

MONUMENT DESCRIPTION:
12" SPIKE WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 59.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 39' 04.54315" N	±0.006M
LONGITUDE:	123° 28' 33.45472" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2507009.642±
Y:	-3791133.577±
Z:	4460032.651±

SPC: OREGON NORTH ZONE

NORTHING:	113757.244	±0.006
EASTING:	2264004.681	±0.005
GRID CONVERGENCE:	-2° 06' 37.8"	
SCALE FACTOR:	0.9999351	
COMBINED FACTOR:	0.99989692	

VERTICAL DATUM: NGVD 29/47		*GEOID MODEL: 93W*
ELLPSOID HEIGHT:	243.561	±0.018
GEOID HEIGHT:	-20.867	±0.054
ORTHOMETRIC ELEVATION:	264.428	±0.055

DIRECTIONS:
FROM THE INTERSECTION OF HOSKINS SUMMIT ROAD AND ALEXANDER ROAD GO SOUTHERLY AND EASTERLY 1.14 MI. TO STARKER ROAD 8100, TURN RIGHT AND FOLLOW FOR 1.34 MI. TO TOP OF SMALL HILL, FOLLOW LOWER ROAD TO LEFT 0.8 MI. TO THE END OF THE ROAD, THEN FOLLOW FLAGGED TRAIL SOUTHEASTERLY UP THE HILL 350 FEET TO THE CLEARING. THE STATION IS JUST EASTERLY FROM THE CENTER OF SAID CLEARING.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-05

STATION NAME: 94-10-05
ALTERNATE NAME:

SET DATE: 9/27/1994 BY BENTON COUNTY
VISIT DATE: 10/12/1994

TOWNSHIP: 10S
RANGE: 5W
SECTION: 31

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 60.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 39' 09.93131" N	±0.005M
LONGITUDE:	123° 21' 10.45148" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2498870.447±
Y:	-3796522.835±
Z:	4460282.548±

SPC: OREGON NORTH ZONE

NORTHING:	113571.425	±0.005
EASTING:	2273764.857	±0.005

GRID CONVERGENCE:	-2° 01' 23.7"
SCALE FACTOR:	0.99993487
COMBINED FACTOR:	0.99986734

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	430.771	±0.015
GEOID HEIGHT:	-21.107	±0.056
ORTHOMETRIC ELEVATION:	451.878	±0.057

DIRECTIONS:
FROM THE INTERSECTION OF KINGS VALLEY HWY. AND PRICE CREEK ROAD, TRAVEL EASTERLY ON PRICE CREEK ROAD FOR 1.51 MILES TO THE END, CONTINUE EASTERLY ALONG GRAVEL ROAD 0.15 MILES TO A GATE (ROSEBORO LUMBER COMPANY SPRINGFIELD, OREGON). FROM SAID GATE TRAVEL 2.71 MILES TO RIGHT FORK, CONTINUE ANOTHER 2.55 MILES TO LOWER ROAD, FOLLOW 0.58 MILES TO LEFT FORK. THE STATION IS ANOTHER 0.1 MILES ALONG MAIN ROAD ON THE RIGHT. TOP OF REBAR IS AT GROUND SURFACE AND IN A CLEARCUT.

COMMENTS:
IN MAY OF 1995 BENTON COUNTY RESTORED TOWNSHIP CORNERS TO THE SOUTH AND WEST OF THIS MONUMENT AND TIED THEM TO THIS CONTROL.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

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BIVARIATE SIGMA SCALER=2.45

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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-06

STATION NAME: 94-10-06
ALTERNATE NAME: 114100700, NORTHWEST CORNER OF SECTION 6 IN TOWNSHIP 11 S, RANGE 4 WEST.

SET DATE: 10/3/1994
VISIT DATE: 10/13/1994

TOWNSHIP: 11S
RANGE: 4W
SECTION: 6

MONUMENT DESCRIPTION:
FOUND 3 1/4" BENTON COUNTY BRASS CAP AS PER CORNER NO. 114100700.

REFERENCE DOCUMENTS:
CORNER NO. 114100700 AND CORNER RESTORATION FIELD BOOK NO. 15, PAGE 52, FOR AN ASTRONOMIC AZIMUTH.

REFERENCE ELLIPSOID GRS80	*HORIZONTAL DATUM IS NAD83/91*	
LATITUDE:	44° 39' 01.86070" N	±0.009M
LONGITUDE:	123° 13' 51.62914" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2490745.408±
Y:	-3801765.798±
Z:	4459855.911±

SPC: OREGON NORTH ZONE		
NORTHING:	112988.411	±0.009
EASTING:	2283418.951	±0.006
GRID CONVERGENCE:	-1° 56' 12.5"	
SCALE FACTOR:	0.99993522	
COMBINED FACTOR:	0.99992332	

VERTICAL DATUM: NGVD 29/47		*GEOID MODEL: 93W*
ELLPSOID HEIGHT:	75.895	±0.021
GEOID HEIGHT:	-21.521	±0.052
ORTHOMETRIC ELEVATION:	97.415	±0.056

DIRECTIONS:
THE CORNER IS 300 FEET EAST OF ARBORETUM ROAD AND S 68° E 160 FEET FROM THE SOUTHEAST CORNER OF THE HOUSE AT 7931 ARBORETUM ROAD.

COMMENTS:
CONTACT THE RESIDENTS (THAIYONG & MAYDAWN MAVICHIEN) AT 7931 ARBORETUM DRIVE (745-7931) BEFORE VISITING THE PROPERTY.

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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STATION NUMBER: 94-10-07

STATION NAME: 94-10-07
ALTERNATE NAME: SW CORNER. SECTION. 31, IN TOWNSHIP 11 SOUTH. RANGE 4 WEST, W.M.

SET DATE: 11/24/1962
VISIT DATE: 10/18/1994

TOWNSHIP: 11S
RANGE: 4W
SECTION: 31

MONUMENT DESCRIPTION:
FOUND 1 1/2" AXLE, 15" BELOW GROUND SURFACE.

REFERENCE DOCUMENTS:
LINN COUNTY CORNER RECORDS.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 33' 48.39417" N	±0.007M
LONGITUDE:	123° 13' 51.76122" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2494458.817±
Y:	-3807428.465±
Z:	4452944.106±

SPC: OREGON NORTH ZONE

NORTHING:	103318.57	±0.007
EASTING:	2283089.037	±0.006
GRID CONVERGENCE:	-1° 56' 12.5"	
SCALE FACTOR:	0.99995000	
COMBINED FACTOR:	0.99994323	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	43.159	±0.015M
GEOID HEIGHT:	-21.646	±0.057
ORTHOMETRIC ELEVATION:	64.805	±0.058

DIRECTIONS:
THIS STATION IS IN LINN COUNTY. FROM THE INTERSECTION OF HWY. 34 AND PEORIA ROAD, TRAVEL EASTERLY ON HWY. 34 0.188 MILES TO THE WESTERLY ENTRANCE OF "THE TACK SHOP". THE MONUMENT IS 54.8 FEET SOUTH-SOUTHWESTERLY OF THE SOUTHWEST CORNER OF THE BUILDING.

COMMENTS:
THERE IS A 20° VERTICAL OBSTRUCTION TO THE WEST.

STATEMENT PER ORS 209.250 (6) (G):
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STATION NUMBER: 94-10-08

STATION NAME: 94-10-08
ALTERNATE NAME:

SET DATE: 8/17/1994 BY BENTON COUNTY
VISIT DATE: 10/17/1994

TOWNSHIP: 12S
RANGE: 7W
SECTION: 1

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 49

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 32' 58.14556" N	±0.005M
LONGITUDE:	123° 28' 35.52207" W	±0.04M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2511414.036±
Y:	-3797711.229±
Z:	4451954.191±

SPC: OREGON NORTH ZONE

NORTHING:	102457.358	±0.005
EASTING:	2263542.597	±0.004
GRID CONVERGENCE:	-2° 06' 39.3"	
SCALE FACTOR:	0.99995258	
COMBINED FACTOR:	0.99992004	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	207.528	±0.011
GEOID HEIGHT:	-21.031	±0.044
ORTHOMETRIC ELEVATION:	228.559	±0.044

DIRECTIONS:
FROM THE INTERSECTION OF NEWPORT HIGHWAY AND WOODS CREEK ROAD, FOLLOW WOODS CREEK ROAD WEST FOR 3.67 MI. TO AN OLD GRAVEL ROAD TO THE NORTH, FOLLOW OLD GRAVEL ROAD TO THE JUNCTION WITH A SKID ROAD TO THE EAST (DOWN HILL). THE STATION IS IN THE LANDING AT THE END OF THE SKID ROAD..

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-09

STATION NAME: 94-10-09
ALTERNATE NAME:

SET DATE: 9/24/1994 BY BENTON COUNTY
VISIT DATE: 10/12/1994

TOWNSHIP: 11S
RANGE: 7W
SECTION: 29

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 58.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 34' 56.39122" N	±0.004M
LONGITUDE:	123° 34' 10.74119" W	±0.004M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2516205.304±
Y:	-3791549.146±
Z:	4454623.997±

SPC: OREGON NORTH ZONE

NORTHING:	106381.290	±0.004
EASTING:	2256287.525	±0.004

GRID CONVERGENCE:	-2° 10' 37.0"
SCALE FACTOR:	0.9999466
COMBINED FACTOR:	0.99989858

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	306.3	±0.011
GEOID HEIGHT:	-20.878	±0.048
ORTHOMETRIC ELEVATION:	327.178	±0.047

DIRECTIONS:
FROM BLODGETT SCHOOL GO SOUTH ON TUM TUM ROAD 1.56 MI. TO LASKY CREEK ROAD. FOLLOW LASKY CREEK ROAD 2.53 MI. TO RIGHT FORK, GO 0.53 MI. TO RIGHT FORK THEN 0.89 MI. TO LANDING AT THE END OF THE ROAD. CORNER IS ±35 FEET N78°W FROM THE END OF LANDING IN THE CENTER OF A GRAVEL ROAD.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-10

STATION NAME: 94-10-10
ALTERNATE NAME:

SET DATE: 9/21/1994 BY BENTON COUNTY
VISIT DATE: 10/12/1994

TOWNSHIP: 3S
RANGE: 7W
SECTION: 1

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGES 47 AND 48.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 28' 35.54967" N	±0.005M
LONGITUDE:	123° 28' 45.37055" W	±0.004M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2514755.932±
Y:	-3802370.170±
Z:	4446219.760±

SPC: OREGON NORTH ZONE

NORTHING:	94365.581	±0.005
EASTING:	2263026.545	±0.004
GRID CONVERGENCE:	-2° 06' 46.3"	
SCALE FACTOR:	0.99996701	
COMBINED FACTOR:	0.99992423	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	272.909	±0.009
GEOID HEIGHT:	-21.142	±0.053
ORTHOMETRIC ELEVATION:	294.05	±0.053

DIRECTIONS:
FROM STARKER FOREST GATE ON ALSEA HIGHWAY AT DINNER CREEK, FOLLOW ROAD 0.20 MI. TO A RIGHT FORK, TAKE RIGHT FORK INTO TIMBER 0.02 MI. TO A FOUR-WAY INTERSECTION, GO STRAIGHT THROUGH INTERSECTION FOR 1.03 MI., FOLLOW ROAD TO RIGHT FOR 0.09 MI. TO END OF GRAVEL. FOLLOW A DIRT ROAD TO THE SOUTHEAST (DOWN THE HILL APPROXIMATELY 500 FEET) TURN RIGHT TO LANDING AT THE BOTTOM. STATION IS IN THE CENTER OF LANDING.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

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BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-11

STATION NAME: 94-10-11
ALTERNATE NAME:

SET DATE: 9/19/1994 BY BENTON COUNTY
VISIT DATE: 10/10/1994

TOWNSHIP: 12S
RANGE: 5W
SECTION: 31

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTROATION FIELD BOOK NO. 15, PAGE 42.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 28' 35.89662" N	±0.005M
LONGITUDE:	123° 21' 07.47670" W	±0.004M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2506227.952±
Y:	-3807820.640±
Z:	4446090.487±

SPC: OREGON NORTH ZONE

NORTHING:	94011.166	±0.005
EASTING:	2273139.636	±0.004

GRID CONVERGENCE:	-2° 01' 21.6"
SCALE FACTOR:	0.99996699
COMBINED FACTOR:	0.99995484

VERTICAL DATUM: NGVD 29/47 GEOID MODEL: 93W

ELLPSOID HEIGHT:	77.488	±0.011
GEOID HEIGHT:	-21.461	±0.041
ORTHOMETRIC ELEVATION:	98.949	±0.042

DIRECTIONS:
FROM THE INTERSECTION OF BELLFOUNTAIN AND LLEWELLYN ROAD, FOLLOW LLEWELLYN WEST FOR 0.725 MI. TO A FARM ROAD TO THE NORTH, GO THROUGH THE GATE INTO OAK GROVE .25 MI. TO MEADOW, STATION IS N 17° W 156 FEET FROM GATE POST INTO MEADOW.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

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BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-12

STATION NAME: 94-10-12
ALTERNATE NAME:

SET DATE: 9/23/1994 BY BENTON COUNTY
VISIT DATE: 10/18/1994

TOWNSHIP: 13S
RANGE: 5W
SECTION: 1

MONUMENT DESCRIPTION:
2"X2" HUB AND TACK.

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGES 55 AND 56.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 28' 32.56663" N	±0.007M
LONGITUDE:	123° 14' 38.10861" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2499063.434±
Y:	-3812587.606±
Z:	4445996.589±

SPC: OREGON NORTH ZONE

NORTHING:	93610.491	±0.007
EASTING:	2281735.879	±0.005
GRID CONVERGENCE:	-1° 56' 45.4"	
SCALE FACTOR:	0.99996719	
COMBINED FACTOR:	0.99995964	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	48.151	±0.014
GEOID HEIGHT:	-21.680	±0.036
ORTHOMETRIC ELEVATION:	69.83	±0.037

DIRECTIONS:
FROM THE INTERSECTION OF SMITH LOOP AND LOREN LANE (2.4 MI. E+S FROM THE NORTH END OF SMITH LOOP) GO NORTH 0.23 MI. TO INTERSECTION WITH AUDRY LANE THEN LEFT (WEST) FOLLOW AROUND CORNER TO NORTH 0.93 MI. TO BRIDGE, CONTINUE ADDITIONAL 0.14 MI. TO A DIRT AND GRAVEL FARM ROAD, TURN LEFT AND GO .10 MI. INTO A FARM FIELD. THE STATION IS IN THE APPROXIMATE CENTER OF FIELD NEAR AN IRRIGATION RISER.

COMMENTS:
NEED ACCESS PERMISSION FROM LOREN SMITH.

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

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BIVARIATE SIGMA SCALER=2.45

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BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-13

STATION NAME: 94 10 13
ALTERNATE NAME: NORTH 1/4 CORNER OF SECTION 1 IN TOWNSHIP 14 SOUTH, RANGE 5 WEST.

SET DATE: 11/15/1990 BY BENTON COUNTY
VISIT DATE: 10/10/1994

TOWNSHIP: 14S
RANGE: 5W
SECTION: 1

MONUMENT DESCRIPTION:
FOUND 3 1/4 BRASS CAP MARKED BENTON COUNTY IN A MONUMENT BOX AS PER CORNER RESTORATION NO. 3846.

REFERENCE DOCUMENTS:
CORNER RESTORATION NO. 3846.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 23' 22.41471" N	±0.006M
LONGITUDE:	123° 14' 24.55301" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2502489.583±
Y:	-3818361.860±
Z:	4439165.689±

SPC: OREGON NORTH ZONE

NORTHING:	84032.640	±0.006
EASTING:	2281710.657	±0.005

GRID CONVERGENCE:	-1° 56' 35.8"
SCALE FACTOR:	0.99998632
COMBINED FACTOR:	0.99997758

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	55.696	±0.014
GEOID HEIGHT:	-21.737	±0.044
ORTHOMETRIC ELEVATION:	77.433	±0.046

DIRECTIONS:
FROM HIGHWAY 99 AND EUREKA ROAD, FOLLOW EUREKA ROAD 2.34 MI. TO HORNING LANE, FOLLOW FARM ROAD 680 FEET EAST TO POWER POLE #P109-2, CORNER IS S4°W 9.68 FEET.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

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BIVARIATE SIGMA SCALER=2.45

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GPS STATION REPORT

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-14

STATION NAME: 94-10-14
ALTERNATE NAME:

SET DATE: 9/20/1994 SET BY BENTON COUNTY
VISIT DATE: 10/11/1994

TOWNSHIP: 14S
RANGE: 6W
SECTION: 1

MONUMENT DESCRIPTION:
2"x2" HUB AND TACK IN CHRISTMAS TREE FIELD APPROXIMATELY S23°W 433 FEET FROM TOWNSHIP CORNER IN BRUCE ROAD

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 43.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 23' 18.72784" N	±0.007M
LONGITUDE:	123° 21' 07.34346" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2510005.370±
Y:	-3813565.199±
Z:	4439120.622±

SPC: OREGON NORTH ZONE

NORTHING:	84227.387	±0.007
EASTING:	2272797.057	±0.006
GRID CONVERGENCE:	-2° 01' 21.5"	
SCALE FACTOR:	0.99998656	
COMBINED FACTOR:	0.99996970	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	107.527	±0.016
GEOID HEIGHT:	-21.502	±0.041
ORTHOMETRIC ELEVATION:	129.029	±0.044

DIRECTIONS:
FROM THE INTERSECTION OF BELLFOUNTAIN AND BRUCE ROADS FOLLOW BRUCE ROAD NORTH UNTIL IT TURNS EAST, TRAVEL EAST .10 MI. TO A GATE ON THE SOUTH SIDE OF THE ROAD, GO THROUGH GATE AND FOLLOW TIMBER LINE .125 MI. TO A FIELD BREAK. THE STATION IS 75 FEET SOUTHWESTERLY IN A MATURE CHRISTMAS TREE FIELD.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
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Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-15

STATION NAME: 94-10-15
ALTERNATE NAME:

SET DATE: 9/23/1994 BY BENTON COUNTY
VISIT DATE: 10/11/1994

TOWNSHIP: 14S
RANGE: 6W
SECTION: 6

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP "MARKED BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGES 53 AND 54.

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 22' 59.99514" N	±0.006M
LONGITUDE:	123° 27' 18.64639" W	±0.006M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2517205.962±
Y:	-3809554.887±
Z:	4438914.729±

SPC: OREGON NORTH ZONE

NORTHING:	83944.862	±0.006
EASTING:	2264563.063	±0.006
GRID CONVERGENCE:	-2° 05' 44.8"	
SCALE FACTOR:	0.99998779	
COMBINED FACTOR:	0.99992445	

VERTICAL DATUM: NGVD 29/47 *GEOID MODEL: 93W*

ELLPSOID HEIGHT:	403.947	±0.011
GEOID HEIGHT:	-21.260	±0.051
ORTHOMETRIC ELEVATION:	425.207	±0.052

DIRECTIONS:
FROM THE INTERSECTION OF OLIVER CREEK AND DAWSON ROAD, FOLLOW OLIVER CREEK ALONG THE POWER LINE AND THEN THE CREEK FOR 3.45 M. (MAIN ROAD), THEN LEFT UP HILL FOR 0.67 MI., THEN RIGHT FOR 0.16 MI. TO TOP OF RIDGE, THEN RIGHT FOR .09 MI. TO LANDING, STATION IS ON THE LEFT.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-16

STATION NAME: 94-10-16
ALTERNATE NAME:

SET DATE: 9/8/1994 BY BENTON COUNTY
VISIT DATE: 10/11/1994

TOWNSHIP: 15S
RANGE: 9W
SECTION: 1

MONUMENT DESCRIPTION:
PK NAIL AND BENTON COUNTY BRASS WASHER IN THE EASTERLY EDGE OF A PAVED DRIVEWAY APPROACH.

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 46.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 17' 20.21086" N	±0.009M
LONGITUDE:	123° 43' 01.07727" W	±0.008M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2538518.208±
Y:	-3803906.862±
Z:	4431173.281±

SPC: OREGON NORTH ZONE

NORTHING:	74261.944	±0.009
EASTING:	2243299.814	±0.008
GRID CONVERGENCE:	-2° 16' 53.1"	
SCALE FACTOR:	1.00001147	
COMBINED FACTOR:	1.00000191	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	60.982	FIXED
GEOID HEIGHT:	-21.580	±0.094
ORTHOMETRIC ELEVATION:	82.562	±0.094

DIRECTIONS:
STATION IS 8 FEET SOUTH OF THE SOUTH FOGLINE OF LOBSTER VALLEY ROAD AND 0.6 WEST OF THE EAST EDGE OF ASPHALT OF THE DRIVEWAY AT 15866 LOBSTER VALLEY ROAD

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

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BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-17

STATION NAME: 94-10-17
ALTERNATE NAME: SOUTH 1/6 CORNER ON THE WEST LINE OF SECTION 7 IN TOWNSHIP 15 SOUTH, RANGE 7 WEST.

SET DATE: 1963
VISIT DATE: 10/11/1994

TOWNSHIP: 15S
RANGE: 7W
SECTION: 7

MONUMENT DESCRIPTION:
FOUND 2" PIPE WITH 3 1/4" BLM BRASS CAP WITH 2"X3' HIGH PIPE AS A GUARD.

REFERENCE DOCUMENTS:

REFERENCE ELLIPSOID GRS80 HORIZONTAL DATUM IS NAD83/91

LATITUDE:	44° 16' 42.50869" N	±0.008M
LONGITUDE:	123° 35' 35.83826" W	±0.008M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2531112.178±
Y:	-3810598.422±
Z:	4430977.015±

SPC: OREGON NORTH ZONE

NORTHING:	72713.650	±0.008
EASTING:	2253119.288	±0.007
GRID CONVERGENCE:	-2° 11' 37.4"	
SCALE FACTOR:	1.00001426	
COMBINED FACTOR:	0.99986169	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	973.164	±0.011
GEOID HEIGHT:	-21.313	±0.073
ORTHOMETRIC ELEVATION:	994.477	±0.073

DIRECTIONS:
FROM THE INTERSECTION OF LOBSTER VALLEY AND PRARIE MOUNTAIN ROAD, FOLLOW PRARIE MOUNTAIN ROAD 1.96 MI. TO THE END OF PAVEMENT, CONTINUE .029 MI. TO RIGHT FORK, FOLLOW GRAVEL FOR 1.55 MI., GO STRAIGHT (UP HILL) 2.42 MI., TAKE RIGHT FORK (BLM ROAD NO. 15-7-7) FOR 1.058 MI. THROUGH GREEN GATE 0.055 MI. CORNER IS DOWN HILL ±40 FEET.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
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BIVARIATE SIGMA SCALER=2.45

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360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-18

STATION NAME: 94-10-18
ALTERNATE NAME:

SET DATE: 10/5/1994 BY BENTON COUNTY
VISIT DATE: 10/10/1994

TOWNSHIP: 15S
RANGE: 6W
SECTION: 11

MONUMENT DESCRIPTION:
2"X2" HUB AND TACK FOR CONTROL POINT TO TIE 1/4 CORNER.

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGES 44 AND 45.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 16' 50.35884" N	±0.011M
LONGITUDE:	123° 23' 26.89722" W	±0.008M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2517262.441±
Y:	-3818962.367±
Z:	4430664.699±

SPC: OREGON NORTH ZONE

NORTHING:	72357.294	±0.011
EASTING:	2269281.386	±0.008
GRID CONVERGENCE:	-2° 03' 00.4"	
SCALE FACTOR:	1.00001368	
COMBINED FACTOR:	0.99997020	

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	277.324	±0.021
GEOID HEIGHT:	-21.485	±0.044
ORTHOMETRIC ELEVATION:	298.809	±0.046

DIRECTIONS:
FROM THE INTERSECTION OF NICHOLS ROAD AND HEWETT ROAD FOLLOW HEWETT ROAD 2.22 MI. TO A SHARP RIGHT TURN. THE STATION IS EAST ABOUT 600 FEET.

COMMENTS:

STATEMENT PER ORS 209.250 (6) (G):
TRIMBLE 4000SSE DUAL FREQUENCY RECEIVERS WERE USED IN FAST STATIC AND STATIC MODES, GPSURVEY AND TRIMNET PLUS SOFTWARE WERE USED TO DOWNLOAD, PROCESS AND ADJUST THE DATA.

NOTE: ALL UNITS ARE METERS EXCEPT AS NOTED. 1 FOOT (INTERNATIONAL) =0.3048 METERS EXACTLY.
UNIVARIATE SIGMA SCALAR=1.96 1 US FOOT=1200/3937 METERS
BIVARIATE SIGMA SCALER=2.45

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Curtis J. Liesenfelt
OREGON
JULY 17, 1986
CURTIS J. LIESENFELT
2213
LICENSE RENEWAL 12/31/1996

BENTON COUNTY
GPS STATION REPORT

BENTON COUNTY SURVEYOR'S OFFICE
360 SW AVERY AVENUE CORVALLIS OREGON 97333-1192
(503) 757-6821 (PHONE), (503) 757-6891 (FAX)

STATION NUMBER: 94-10-19

STATION NAME: 94-10-19
ALTERNATE NAME:

SET DATE: 9/20/1994 BY BENTON COUNTY
VISIT DATE: 10/10/1994

TOWNSHIP: 15S
RANGE: 5W
SECTION: 1

MONUMENT DESCRIPTION:
5/8" REBAR WITH RED PLASTIC CAP MARKED "BENTON COUNTY CONTROL PT".

REFERENCE DOCUMENTS:
FOR AN ASTRONOMIC AZIMUTH, SEE CORNER RESTORATION FIELD BOOK NO. 15, PAGE 45.

REFERENCE ELLIPSOID GRS80 *HORIZONTAL DATUM IS NAD83/91*

LATITUDE:	44° 18' 04.13006" N	±0.006M
LONGITUDE:	123° 13' 49.35616" W	±0.005M

GEOCENTRIC CARTESIAN COORDINATES

X:	-2505604.859±
Y:	-3824538.559±
Z:	4432146.434±

SPC: OREGON NORTH ZONE

NORTHING:	74187.613	±0.006
EASTING:	2282157.265	±0.005

GRID CONVERGENCE:	-1° 56' 10.8"
SCALE FACTOR:	1.00000826
COMBINED FACTOR:	0.99999806

VERTICAL DATUM: NGVD 29/47	*GEOID MODEL: 93W*	
ELLPSOID HEIGHT:	65.074	±0.016
GEOID HEIGHT:	-21.786	±0.070
ORTHOMETRIC ELEVATION:	86.860	±0.071

DIRECTIONS:
FROM THE INTERSECTION OF OLD RIVER ROAD AND DODGE ISLAND ROAD, FOLLOW OLD RIVER ROAD NORTHERLY FOR 0.22 MI. TO THE GRAVEL DRIVE TO 24031 (PITCHERS), TURN RIGHT AND STAY TO THE LEFT TO FOLLOW DIRT FARM ROAD 0.75 MI. NORTH-NORTHEAST ALONG THE SOUTHEAST EDGE OF A FARM FIELD TO THE STATION. THE MONUMENT IS 5 FEET SOUTHEASTERLY FROM THE CENTER OF SAID DIRT FARM ROAD, OPPOSITE AN ASH STUMP WITH NO BARK AND ON THE NORTHWEST SIDE OF A SLOUGH.

COMMENTS:

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